

# The Social Impact of Casinos: Literature Review and Cost Estimates

January 21, 2010

## Introduction and Overview

The Human Services Advocates (HSA), an organization of nonprofit human services providers that receive funding from the City of Columbus, asked Community Research Partners (CRP) to conduct a brief literature review on the social impact of casinos, with a focus on predicting increased costs to the human services system. CRP's first task was to determine which research was prepared by groups advocating for or against casino development. Researchers have recognized this problem, and some (Reith and ScotCen 2006, Stitt 2000) have attempted to distinguish perceived and real problems from casinos. CRP's review uses academic and government sources that approached their research from a neutral perspective. Key sources are the National Opinion Research Center (NORC), University of Chicago report, *Gambling Impact and Behavior* (1999), and a report from the U.S. General Accounting Office, *Impact of Gambling* (2000). These comprehensive studies provide an in-depth analysis of the effects of gambling on individuals, families, and communities, and an overview of recent research.

CRP was asked to prepare this study within a short timeframe, but we believe it provides a good picture of research and information from credible sources on the potential social impacts on, and costs to, communities of casino development. Although it was not possible to determine specific human service costs, we hope this provides a starting point for discussions of the impacts a casino might have on central Ohio human services organizations and strategies to address them.

## Summary of findings

1. The literature shows that the most clear social impact of casino development is the increase in problem gambling that results. It is estimated that 1.2% of U.S. adults are pathological gamblers at some point in their lifetime and that another 1.5% are problem gamblers. The likelihood of being a pathological or problem gambler is double for a person living within 50 miles of a casino.
2. Using the NORC cost figures, CRP estimates that if a casino were built in Columbus, there may be over 22,000 new problem and pathological gamblers in Franklin County. The additional social cost to address this increase in problem and pathological gambling is estimated to be:
  - \$28 million annually in ongoing costs, stemming from job loss, unemployment and welfare benefits, poor physical and mental health, and gambling disorder treatments. These may translate into higher demands on the community's human services systems.
  - \$223 million in total lifetime costs from one-time or less frequently occurring events such as bankruptcies, arrests, imprisonment, and legal fees for divorce. These costs will be borne primarily by individuals and families, businesses, and government, but may also impact the human services system.
3. The literature is mixed on whether casinos increase crime in adjacent neighborhoods any more than other facilities that attract large numbers of visitors. There are also mixed research findings on the net positive or negative effect of casinos on the local economy, identifying both pros (more jobs) and cons (jobs are low paid).

Strengthening Ohio communities through data, information, and knowledge.

4. In states where casino tax revenues have been directed back to the local communities where casinos are located, they have typically been used for economic and physical development projects, rather than for human services.
5. Local government social service departments in Las Vegas and Atlantic City do not appear to have services targeted to address problem gambling. The University of Pittsburgh School of Social Work has a Gambling Counseling Training Institute to train service providers in recognizing and treating problem gambling.

### Social impacts of gambling and casinos

The University of Chicago's National Opinion Research Center (NORC 1999) estimates that 1.2% of U.S. adults are lifetime pathological gamblers and 1.5% are lifetime problem gamblers.<sup>1</sup> The literature shows a connection between casinos and increased rates of compulsive gambling problems. Reith et al (2006) cite a variety of research (NORC 1999, Welte et al 2004, Emerson and Laundegran 1996, Volberg 1995) to show that the location of a casino within 50 miles of an individual's home is associated with approximately double the likelihood of problem gambling. Based on this, opening a casino could potentially double the existing prevalence and social impacts of problem gambling in a community.

The GAO report concluded that it is difficult to measure the social effects of gambling on the general population, because of limited data, the complexity of establishing cause-effect relationships between gambling and other problems, and the difficulty of isolating gambling from other factors. However, the NORC study found that the subpopulations of pathological and problem gamblers are more likely than other gamblers or non-gamblers to have been on welfare, to have declared bankruptcy, to have been arrested or incarcerated, and to have received mental health care (Table 1). They note:

Pathological and problem gamblers in the United States cost society approximately \$5 billion per year and an additional \$40 billion in lifetime costs for productivity reductions, social services, and creditor losses. However, these calculations are inadequate to capture the intrafamilial costs of divorce and family disruption associated with problem and pathological gambling. (NORC 1999, p. ix)

**Table 1. Percentage of health, substance abuse, and other problems by lifetime gambler types**

Problem	Non-Gamblers	Low-Risk Gamblers	At-Risk Gamblers	Problem Gamblers	Pathological Gamblers
Health poor/fair, past year	22.8	14.0	15.7	16.3	31.1
Mental health services, past year	5.1	6.8	6.4	12.8	13.3
Emotionally harmful family argument about gambling	NA	0.1	0.8	15.8	53.1
Drug use 5+ days, past year	2.0	4.2	9.2	16.8	8.1
Any job loss, past year	2.6	3.9	5.5	10.8	13.8
Bankruptcy, ever	3.9	5.5	4.6	10.3	19.2
Arrested, ever	4.0	10.0	21.1	36.3	32.3

Source: National Opinion Research Center, survey research using diagnostic screening questionnaire

<sup>1</sup> Gambling classifications based on criteria from the American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV). Lifetime gamblers include persons known to have the attributes of a gambling type for at least a part of their lives.

Several other studies have also found a link between the presence of casinos and higher bankruptcy rates:

- Stitt (2000) collected and analyzed data for eight new casino communities and eight non-casino control group communities. Seven of the eight casino communities had increases in personal bankruptcy, with statistical significance in five of the seven. The communities that had casinos the longest tended to have the greatest increases in bankruptcy rates.
- Reith et al (2006) cite several studies, including one by Barron et al (2002) that analyzed 3,000 counties with and without casinos from 1993 to 1999. Controlling for rising bankruptcy rates overall, the study found that the presence of casino gambling increased bankruptcy rates by 5.4% during this time period.
- Goss and Morse (2005) analyzed bankruptcy rates in counties that legalized gambling between 1990 and 2002 versus similar counties that did not. Compared to the non-casino counties, the counties that added casinos in 1990 had a compound annual growth rate in the bankruptcy rate that was 2% higher.

The literature points to a significant relationship between pathological gambling and crime for the individual gambler (NORC 1999, Stitt 2000), but the relationship between casinos and crime in their immediate area has been more difficult for researchers to either verify or disprove. This relationship may be more dependent on local factors such as police presence, the casino's own security measures, and surrounding development and foot traffic (U.S. General Accounting Office 2000, Reith and ScotCen 2006, Stitt 2000). Grinols and Mustard (2006) found that crime incidents and policing costs did rise, though Walker (2008) wrote a response analysis that questioned whether these increases were based merely on the fact that there were more visitors. Regardless, as Grinols and Mustard highlighted in a counter-response (2008), the increase in visitors results in greater policing costs.

### ***Quantifying the social costs of problem gambling***

The NORC study identified two sets of social costs resulting from problem and pathological gambling. These were net of other effects, such as drug or alcohol abuse, and according to the National Gambling Impact Study Commission, should be considered minimums (GAO).

- 1) Ongoing, annual costs resulting from job loss, unemployment and welfare benefits, poor physical and mental health, and gambling disorder treatments
- 2) One-time (or less frequently occurring) costs over the lifetime of a gambler resulting from bankruptcy, arrests, imprisonment, legal fees for divorce, etc.

For simplicity of terminology, CRP has labeled these as "Type 1" and "Type 2" social costs.

**Table 2. NORC (1999) estimates of average social costs per problem and pathological gambler**

Type of gambler	Type 1 (ongoing/annual) social cost per gambler	Type 2 (lifetime total) social cost per gambler
Problem gambler	\$715	\$5,130
Pathological gambler	\$1,200	\$10,550

Because the research indicates that the location of a casino in the community may double the likelihood of problem and pathological gambling, it is assumed that a new casino may also double the social costs of problems related to gambling, above and beyond the costs arising

from gamblers currently in the community. Using the NORC cost estimates (Table 2), inflation-adjusted to 2009 dollars, CRP estimated the additional social costs resulting from the location of a casino in Franklin County (Table 3).

**Table 3. Estimate of additional social costs in Franklin County from increased prevalence of pathological and problem gambling as a result of a new casino**

Category	Data	Data sources, notes, and caveats
Franklin County adults age 18+	<b>831,734</b>	U.S. Census Bureau, American Community Survey 2006-2008 3-year estimates
a) Number of additional problem gamblers (1)	$831,734 \times 1.5\% = \mathbf{12,476}$	1.5% of U.S. adults are lifetime problem gamblers (NORC estimate 1999)
b) Number of additional pathological gamblers (1)	$831,734 \times 1.2\% = \mathbf{9,981}$	1.2% of U.S. adults are lifetime pathological gamblers (NORC estimate 1999)
Estimated additional Type 1 annual social costs from a new casino in Franklin County		
c) Annual social cost of additional problem gamblers	$12,476 \times \$944 = \mathbf{\$11,777,344 \text{ annually}}$	NORC (1999) estimates (see Table 2) updated by CRP to 2009 dollars (2)
d) Annual social cost of additional pathological gamblers	$9,981 \times \$1,584 = \mathbf{\$15,809,904 \text{ annually}}$	NORC (1999) estimates (see Table 2), updated by CRP to 2009 dollars (2)
e) Total Type 1 annual social cost of additional pathological and problem gamblers (c + d)	<b>\$27,587,248 annually</b>	
Estimated additional Type 2 lifetime social costs from a new casino in Franklin County		
f) Lifetime social cost of additional problem gamblers	$12,476 \times \$6,772 = \mathbf{\$84,482,482 \text{ lifetime total}}$	NORC (1999) estimates (see Table 2) updated by CRP to 2009 dollars (2)
g) Lifetime social cost of additional pathological gamblers	$9,981 \times \$13,926 = \mathbf{\$138,995,406 \text{ lifetime total}}$	NORC (1999) estimates (see Table 2), updated by CRP to 2009 dollars (2)
h) Total Type 2 lifetime social cost of additional pathological and problem gamblers (f + g)	<b>\$223,477,888 lifetime total</b>	

(1) These figures represent the increased number of adults who may become problem and pathological gamblers as a result of the location of a casino in the community

(2) Adjustment to 2009 dollars based on Bureau of Labor Statistics Consumer Price Index calculator: <http://data.bls.gov/cgi-bin/cpicalc.pl>

Table 3 estimates \$28 million per year in Type 1 social costs that are linked most directly to human services issues (mental health, substance abuse, welfare, gambling addiction treatment) and \$223 million in Type 2 total lifetime social costs (bankruptcies, arrests, imprisonment, divorce) that impact individuals, families, businesses, and government most directly, although they also impact the human services system.<sup>2</sup> It should be noted that these “one-time” Type 2

<sup>2</sup> These cost estimates are methodologically conservative, in that they use NORC (1999) data on the proportions of U.S. adults who are pathological or problem gamblers, which are lower than other credible sources. A 1998 study by the National Research Council of the National Academy of Sciences estimates that 1.5% of U.S. adults are lifetime pathological gamblers and 3.9% are problem gamblers. The Council of Compulsive Gambling of New Jersey, Inc. estimates that 1.2% of the New Jersey population may be classified as probable pathological gamblers, 1.9% as potential pathological gamblers, and 5.8% as problem gamblers.

costs will reoccur with each new generation of adults, a percentage of who will have an increased likelihood of gambling problems due to proximity to a casino. The literature review did not find a methodology for translating these “costs to society” into specific local human service program costs; however, it does provide a sense of the magnitude of the increase in demand on the local human service system that may result from locating a casino in the community.

**The effects of casinos on the local economy**

According to the Columbus Dispatch (11/4/09), plans by Penn National Gaming call for a 300,000-square-foot casino in Columbus that would create an estimated 2,000 jobs. Although casino developers assert that a casino will produce new jobs, increase tax revenues, and provide other local economic benefits, research is mixed on the subject of whether casinos have a net positive or negative economic impact. While advocates for or against casinos might be selective in their choice of data, much of the academic and governmental literature weighs both sides carefully. A comprehensive example of this is the Atlantic City case study in the 2000 GAO report on the impact of gambling. Table 4 highlights the pros and cons of a casino’s economic impact from the GAO report.

**Table 4. Summary of GAO (2000) report findings on the positive and negative economic effects of casinos**

Economic effect	Pros	Cons
Employment	Unemployment rate declined in Atlantic City since the opening of casinos...	...but unemployment in Atlantic City has always remained higher than statewide.
Income levels	Casinos offer full-time entry-level jobs...	...but income levels have not risen in areas with new casino development. Some researchers describe casino jobs as low-pay unless they are unionized.
	Income levels may not have risen, but there is much less dependency on welfare (17% decrease in per capita unemployment insurance payments, 13% decrease in per capita welfare costs)...	...but this reduced dependency may have more to do with the historical reduction of welfare programs since the early 1980s.
Area businesses	Construction, hospitality, and amusement revenue increases...	...but the number of restaurants, bars, and shops in the areas around casinos decline. Atlantic City’s 242 restaurants and bars in 1977 (the year before the first casino opened) were down to 142 by 1996.

**State and local government policies to address casino impacts**

Casino tax revenues represent a fiscal benefit to state and local governments. However, a brief review of information from state casino/gaming authorities and municipal social service agencies shows that these revenues are not directly used to cover the social costs of gambling. In New Jersey and Pennsylvania, for example, casino revenues that come back to local communities tend to be used for the planning and implementation of physical development projects, such as economic development, infrastructure, and community amenities. Instead of

deliberate planning by state or local governments to proactively tackle the increased social service costs resulting from casinos, it may be that state resources are finding their way to human services, if at all, in a delayed and indirect route through local government general funds.

CRP reviewed websites of Indiana, Louisiana, Nevada, New Jersey, New Mexico, and Pennsylvania state government authorities on casinos or gaming. Although this review is not comprehensive, CRP observed the following characteristics among these six state agencies:

1. The majority of these web sites had revenue information for casinos and other gaming venues (racetrack, pari-mutuel, video poker, Internet, etc.).
  - New Jersey provides the most detailed information on a variety of subjects, including annual revenues for each casino by different types of games, casino employment by zip code, etc.
  - Nevada has revenue data on an aggregated basis and information on individual licensed casino workers.
  - Indiana has casino evaluation reports from the Center for Urban Policy and the Environment at Indiana University-Purdue University, contracted by the Indiana Gaming Commission. The reports are focused on economic and fiscal impacts of each casino. Occasionally, the reports cover community impact issues.
2. All states operate a voluntary “self-exclusion” program, where people who are addicted to gambling can provide their information, so that casinos will know not to let them gamble.
3. Most states do not clearly identify any channeling of casino tax revenues towards human service programs.
  - New Jersey has a Casino Reinvestment Development Authority (CRDA) which is funded by a separate 1.25% tax on gross casino revenues. CRDA funds the planning and implementation of economic development and community development projects that are normally physical in nature. For example, even community development projects are focused on structures such as supermarkets, recreation facilities, and health centers, rather than social services. The geographic distribution of funding between Atlantic City, the rest of South Jersey, and the rest of the state has varied over time.
  - Examples of local casino tax revenue spending in Pennsylvania show an emphasis on economic development, infrastructure, and other physical development projects.
4. Pennsylvania statutes require that each slot machine licensee submit a Compulsive and Problem Gambling Plan to the state. The plan must include provisions for employee training on identifying and handling compulsive gamblers, signage for toll-free help numbers and other information, educational brochures, and other internal controls. The Gaming Control Board reviews the plans and may consult the state Department of Health.

CRP also reviewed web sites of local government social service departments in the City of Las Vegas and Clark County in Nevada and the City of Atlantic City in New Jersey. None of the agency websites identify compulsive gambling counseling or treatment as one of the services they provide.

### ***Pittsburgh case study***

Pittsburgh, which only recently opened its first casino, appears to be more proactive in identifying linkages between gambling and human services. In 2008, the University of Pittsburgh School of Social Work (Engel, Rosen, and Saska, 2008) conducted a survey of 137 human service providers to measure their readiness prior to a casino's scheduled opening in May 2009 (opened as the River Casino in August 2009, Philadelphia Daily News 8/11/09). Their survey found that at least three-quarters of the agencies:

- Have not sent staff for training in treating gambling disorders (85%)
- Do not screen for problem gambling (86%)
- Do not treat problem gambling (94%)
- Do not refer clients to other agencies for treatment of gambling-related problems (73%)

Many of these organizations felt that the problem of gambling addiction did not match their client characteristics. While this may have been true prior to the opening of the casino, the researchers anticipated that the opening of the new casino would generate new types of service needs that human service agencies were not prepared to handle. They recommended:

- An educational program directed at service providers should be implemented.
- All human service agencies should implement at least a two-item clinical screen for problem gambling.
- A centralized data bank that lists providers with certified gambling counselors should be created and made accessible to the county's human service agencies.
- The state should expand their prevention efforts through an enhanced public awareness and educational campaign directed at the general community.
- The state should allocate additional financial resources from those generated by gambling revenue to address gambling-related problems.
- State policy should be modified to include compulsive and problem gambling program reimbursements for both mental health and substance abuse providers for treating gambling disorders.
- Prior to the opening of the casino, a benchmark study should be implemented to monitor gambling behavior among residents of Allegheny County.

For this literature review, CRP contacted the University of Pittsburgh researchers for updates related to their recommendations. Since their study, the School of Social Work has developed and implemented a Gambling Counseling Training Institute, approved by the National Council on Problem Gambling. Over 125 clinical professionals in Allegheny County and surrounding counties have been trained through this initiative. A similar program may be needed in central Ohio to prepare human service agencies to handle increases in gambling-related problems.

The School of Social Work is continuing to research this issue. Current and future research topics include:

- a study focused on agencies primarily serving older adults
- a survey of college students
- a follow-up study of participants in the Gambling Counseling Training Institute

### **Addendum: Ohio Programs and Resources**

Although Ohio does not yet have casino gambling, there are programs and resources in place through the Ohio Lottery Commission ([www.ohiolottery.com/problems/programs.html](http://www.ohiolottery.com/problems/programs.html)) to specifically address problem gambling. These include:

- Funding, through the Ohio Department of Alcohol and Drug Addiction Services, for outpatient problem gambling treatment services in Athens, Cincinnati, Cleveland, Toledo, and Youngtown
- Training for counselors and professionals to work with problem gamblers and their families through the Ohio Council on Problem Gambling
- A problem gambling helpline
- Brochures and literature on problem gambling
- Speakers to address problem gambling and youth gambling

The ballot language permitting the development of four casinos in Ohio specifies how tax revenues generated by the casinos will be allocated. This includes 2% of gross tax revenues for gambling and substance abuse treatment and prevention, which a June 2009 University of Cincinnati Economics Center for Education and Research study, *The Economic and Fiscal Impacts of the Ohio Jobs and Growth Plan: Analysis of the Four Proposed Ohio Casinos*, estimated may be \$12.6 million statewide. Additional tax revenues will flow to the four cities where casinos will be located (\$31.4 million estimate), and to counties and school districts, the state of Ohio, and law enforcement training.

## Sources

- Engel, Rafael; Rosen, Daniel and Soska, Tracy. January 2008. *Raising the Stakes: Assessing Allegheny County's human service response capacity to the social impact of casino gambling*. School of Social Work, University of Pittsburgh. <http://199.224.18.100/uploadedFiles/DHS/RaisingTheStakes.pdf>
- Goss, Ernie and Morse, Edward A. 2005. *The Impact of Casino Gambling on Individual Bankruptcy Rates from 1990 to 2002*. Creighton University. [http://www.creighton.edu/fileadmin/user/COBA/EconomicOutlook/docs/casinobankruptcy\\_wp\\_2005\\_04.pdf](http://www.creighton.edu/fileadmin/user/COBA/EconomicOutlook/docs/casinobankruptcy_wp_2005_04.pdf)
- Grinols, Earl L. and Mustard, David B. 2006. *Casinos, Crime, and Community Costs*. The Review of Economics and Statistics 88(1): 28-45. <http://www.maine.com/editions/2006-05-15/images/20060531000107C.pdf>
- Grinols, Earl L. and Mustard, David B. 2008. *Correctly Critiquing Casino-Crime Causality*. Econ Journal Watch 5(1): 21-31. [http://www.aier.org/ejw/archive/doc\\_view/3583-ejw-200801?tmpl=component&format=raw](http://www.aier.org/ejw/archive/doc_view/3583-ejw-200801?tmpl=component&format=raw)
- National Opinion Research Center, University of Chicago. April 1999. *Gambling Impact and Behavior Study*. Report to the National Gambling Impact Study Commission. <http://www.norc.org/NR/rdonlyres/5C44C702-3598-453A-8CCD-AFB05ACC8822/0/GIBSFinalReportApril1999.pdf>
- Niquette, Mark. November 4, 2009. *We'll win Columbus over, casino developers vow*. Columbus Dispatch. [http://www.dispatch.com/live/content/local\\_news/stories/2009/11/04/casino\\_fight.html](http://www.dispatch.com/live/content/local_news/stories/2009/11/04/casino_fight.html)
- Reith, Gerda and the Scottish Centre for Social Research (ScotCen). 2006. *Research on the Social Impacts of Gambling*. Scottish Executive Social Research. <http://www.scotland.gov.uk/Resource/Doc/143770/0036514.pdf>
- Smith, Elmer. August 11, 2009. *Even as Pittsburgh's casino opens, the gaming blossom shrivels*. Philadelphia Daily News. [http://www.philly.com/dailynews/columnists/elmer\\_smith/20090811\\_Elmer\\_Smith\\_Even\\_as\\_Pittsburgh\\_s\\_casino\\_opens\\_the\\_gaming\\_blossom\\_shrivels.html](http://www.philly.com/dailynews/columnists/elmer_smith/20090811_Elmer_Smith_Even_as_Pittsburgh_s_casino_opens_the_gaming_blossom_shrivels.html)
- Stitt, Grant. November 2000. *Effects of Casino Gambling on Crime and Quality of Life in New Casino Jurisdictions*. Prepared for the U.S. Department of Federal Justice. <http://www.ncjrs.gov/pdffiles1/nij/grants/187679.pdf>
- U.S. General Accounting Office. April 2000. *Impact of Gambling: Economic effects more measurable than social effects*. Report to the Honorable Frank R. Wolf, House of Representatives. <http://www.gao.gov/new.items/gg00078.pdf>
- Walker, Douglas M. 2008. *Do Casinos Really Cause Crime?* Econ Journal Watch 5(1): 4-20. [http://www.aier.org/ejw/archive/doc\\_view/3586-ejw-200801?tmpl=component&format=raw](http://www.aier.org/ejw/archive/doc_view/3586-ejw-200801?tmpl=component&format=raw)

## **Policy review – government agency web sites:**

- City of Atlantic City, Health & Human Services, [http://www.cityofatlanticcity.org/con\\_gov\\_healthhuman\\_sub\\_socservices.asp](http://www.cityofatlanticcity.org/con_gov_healthhuman_sub_socservices.asp)
- Clark County Social Service, [http://www.accessclarkcounty.com/depts/social\\_service/Pages/default.aspx](http://www.accessclarkcounty.com/depts/social_service/Pages/default.aspx)
- Indiana Gaming Commission, <http://www.in.gov/igc/>
- Indiana Gaming Commission, Annual Reports, <http://www.in.gov/igc/2361.htm>
- Louisiana Gaming Control Board, <http://lgcb.dps.louisiana.gov/>

Nevada Gaming Control Board, <http://gaming.nv.gov/>

New Jersey Casino Control Commission, <http://www.state.nj.us/casinos/>

New Jersey Casino Reinvestment Development Authority, <http://www.njcrda.com/>

New Mexico Gaming Control Board, <http://www.nmgcb.org/>

Pennsylvania Gaming Control Board, <http://www.pgcb.state.pa.us/>

Pennsylvania Gaming Control Board, examples of local projects, <http://www.pgcb.state.pa.us/?pr=292>

State of Pennsylvania, Compulsive and Problem Gambling Requirements, 58 PA Code 501a.1  
[http://www.pacode.com/secure/data/058/chapter501a/058\\_0501a.pdf](http://www.pacode.com/secure/data/058/chapter501a/058_0501a.pdf)